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34. SOME OBSERVATIONS ON THE MOTHER-YOUNG RELATIONSHIP IN *MESOBUTHUS TAMULUS TAMULUS* (FABR.) (ORDER: SCORPIONIDA, FAMILY: BUTHIDAE)

(With two text-figures)

INTRODUCTION

This study describes 9 month's observations on commonly occurring yellow scorpion, *Mesobuthus tamulus tamulus* (Fabr.) in Maharashtra. It is well known that the mother carries the young on her back. As they grow in size, after 8-10 days after birth, the larvae get scattered from the mother and gradually maternal care behaviour diminishes in intensity.

MATERIAL AND METHODS

14 gravid females were collected from Pirangut Wagholi and Kamshet around Pune. They were kept in a wooden cage of size 1' H $\times$ 1½' L $\times$ 1' W (Fig. 1) with wire mesh on 3 sides and a glass door. The legs of the cage were kept in plastic containers holding water to keep out ants. Black soil was spread and pieces of coconut shell were placed in the cage. Insects were given as food and water was given twice a week.

After parturition, each mother along with its

young was separated and kept in a glass jar with a cover of muslin cloth.

OBSERVATIONS

After delivery, the mother carried a litter of 20-25 tiny white young, measuring 10 mm in length, under a thin white birth membrane on her back (Fig. 2). Occasionally they moved but otherwise were quiescent. During this phase, the mother hungrily devoured 2-3 prey offered, one by one. However her movements were restricted and she attempted to catch a prey only when it was within her range. The tail constantly covered the young and the mother alertly responded to minute stimuli. The fingers of pedipalps were open. The ventral surface of the body touched the ground but the posterior portion of the mesosoma was slightly uplifted. The legs were spread and the back arched; when the young scorpions crawled over her legs and pedipalps, the mother remained motionless.

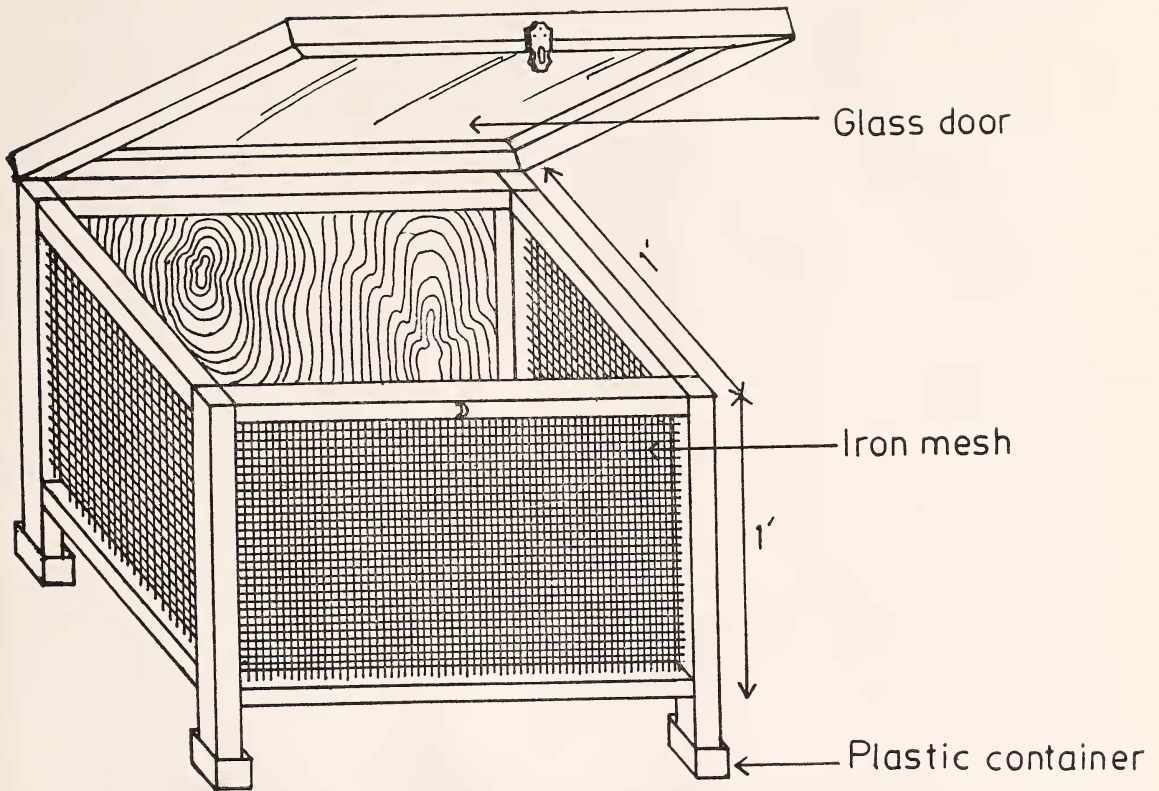


Fig. 1. Scorpion cage.

After 3 to 4 days, the young moved actively and hid below the belly of the mother.

One of the females gave birth to young ones during day time. She stood with tips of both pedipalps touching the ground. The metasoma and telson was straight and, thus the female stood arched and the young were dropped to the ground.

The young were able to recognize the parent and crawled over her body. Ten days after birth the young left the mother scorpion, wandered around and were seen hiding below coconut shell but at the slight stimulus of a brush, they swiftly rushed towards the mother.

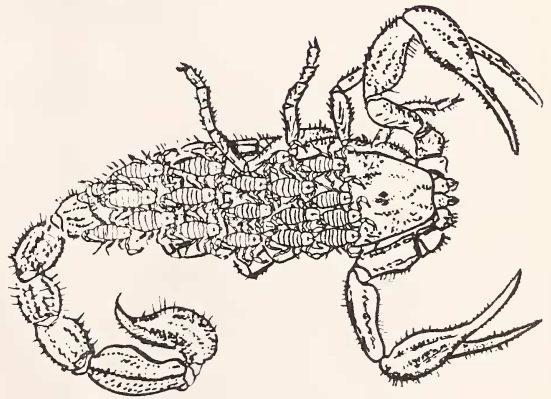


Fig. 2. Mother with larvae on her back.

TABLE 1

THE BIRTH RECORD OF YOUNG

Mother	Date of parturition	Time of parturition	Number of young
A	13-10-1980	Night	25
B	12-11-1980	Night	20
C	11-2-1981	Day	21
D	19-2-1981	Night	15
E	24-2-1981	Night	30
F	24-2-1981	Night	20
G	26-2-1981	Night	24
H	31-3-1981	Day	40
I	23-4-1981	Night	20
J	26-6-1981	Night	27
K	15-11-1984	Day	29
L	14-3-1985	Night	20
M	17-3-1985	Day	14
N	15-5-1985	Night	14

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DISCUSSION

Observations on *Mesobuthus tamulus tamulus* (Fabr.) suggest that the mother offers perfect protection to the young which recognize their mother. Rarely a mother scorpion ate young, but it was perhaps the result of captivity and lack of food.

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35. ON AN INTERESTING CASE OF PARENTAL CARE AND
DISTRIBUTION OF *CORMOCEPHALUS DENTIPES* POCKOCK
(CHILOPODA: SCOLOPENDROMORPHA:
SCOLOPENDRIDAE)

Cormocephalus dentipes Pocock is a scolopendrid centipede, earlier recorded from Assam, Bengal and surrounding areas (Jangi and Das 1980). Subsequently, its distribution in the western Himalaya (U.P.) and Himachal Pradesh (Khanna and Kumar 1984) indicated that the species under study is not thoroughly collected or studied in the gangetic plains including Terai regions of Uttar Pradesh. Recently, we have been able to collect a good number of *Cormocephalus dentipes* Pocock from the subsoil and under-forest leaf-litter among sal trees in Terai zone of Uttar Pradesh in Dudhwa National Park. The occurrence of

this species in Dudhwa National Park extends its range of distribution to the intervening region between the north-western and eastern parts of India. It seems probable that the species might be available throughout, if a thorough search is made.

So far no mention of its breeding behaviour or egg cluster has been reported by earlier workers. During the faunistic survey on 23rd July, 1986, a female specimen was collected from decaying leaves near the Forest Rest House, Belraiyan (Dudhwa National Park). At the time of collection, the same female was observed exhibiting an interesting behaviour